CHAPTER 15

EMOTION AND MOTIVATION IN THE LIVES OF PERFORMERS

ROBERT H. WOODY AND
GARY E. MCPHERSON

15.1 INTRODUCTION

In his authoritative book *The Art of Piano Playing*, Heinrich Neuhaus (1973, p. 29) asserted:

> Whoever is moved by music to the depths of his soul, and works on his instrument like one possessed, who loves music and his instrument with passion, will acquire virtuoso technique; he will be able to recreate the artistic image of the composition; he will be a performer.

Because music is often regarded as the 'language of the emotions' (Mithen, 2006, p. 24), it makes sense within this book to explore emotion in the lives of performers—those musicians who are charged with the responsibility of communicating composed or improvised music to listeners, and of doing so in the fashion described by Neuhaus above; that is, in ways that bring to life an aural experience that can be deeply emotive for themselves and for those of us who are the recipients of their efforts. Such emotional responses during the act of performing and perceiving music seem especially important given the amount of time and effort musicians invest into refining their craft, and the difficulty many have reaching the level described by Neuhaus.

The chapter begins with sections dealing with the role of emotions in everyday life and the intrinsic and emotional rewards offered by music. We then turn our attention to a number of specific aspects of emotion and music performance: the role of practice and gaining expertise, the generation of expressive performance, and the off-stage emotional issues of performers. The key messages we wish to convey are that emotions play an important part in the lives of performers, and that any explanation of the art of music performance must involve more than a description of mere technical accomplishment. In our view, a more complete account of the art of performance would include an explanation of the emotional climate in which the musician works and performs, and the array of emotions inferred in the quote cited above. The elements of this explanation and the research into these mechanisms form the basis of this chapter.

15.2 Pursuing a life of musical performance

Music can be one of the most personally rewarding and satisfying pastimes or careers in which a person can be actively engaged. Some of us are informed connoisseurs, while others have had a passing or periodic infatuation with music. Those of us who participate actively can do so as amateurs or as professionals. Whether one engages in music for love or for money (or both!), there is widespread agreement that music is basic to our human design and a species-wide behaviour that involves a considerable emotional component (Welch & Adams, 2003). Throughout our lives, the intrinsic appeal of music is evident in the attention infants give to music and the rhythmic movements and vocalizations they make early in life, why children engage in music informally as part of their daily play activities, how music shapes our identity during adolescence, the role of music in adult lives, and why so many choose to be involved with music more intensively by learning to play an instrument or seeking opportunities to sing with others.

15.2.1 Choosing and sustaining musical involvement

As with any domain, motivation for engaging in music involves much more than just a feeling of wanting to do it. Musicians who complain that they are 'not motivated to practise' may really be saying that it does not sound enjoyable to them, or that it does not match the mood they are in at that particular moment. Yet they may still decide to practise in spite of this feeling, knowing they may feel a sense of accomplishment or satisfaction with themselves afterward. Obviously, there are reasons for behaviour other than an immediate emotional reward. Yet the connection between motivation and emotion is strong (Lewis & Sullivan, 2005; Welch & Adams, 2003). People's feelings

about themselves and others affect their beliefs and perceptions about the activities they choose to undertake, and are an inescapable source of their motivation. This is particularly important in a domain such as music, where personal feelings have such a powerful effect on one's overall sense of well-being and social identity (McPherson & McCormick, 2006).

Emotional and aesthetic rewards of music making

The capacity of music to evoke emotions is no doubt a primary reason—perhaps *the main reason*—that people listen to music. Because listening to music always precedes performing it in a musician's development, it is likely the two activities share underlying motives. Based on his research, Persson (2001) asserted that musicians pursue performance primarily from a *hedonic* motive; that is 'a means to generate positive emotional experiences mostly for one's own satisfaction' (p. 277). If hearing a beautiful melody is pleasing, it seems that being able to perform it oneself can be an even more powerful experience.

Some emotional reactions to music can be extremely powerful and influential in a person's life. Humanistic psychologist Abraham Maslow coined the term 'peak experiences' to describe intensely emotional experiences (Maslow, 1968). Maslow and others who extended his work devoted specific attention to the power of music to evoke states of ecstasy in people (Panzarella, 1980). More recent work by Sloboda (1990, 1991, 1998) and Gabrielsson (Chapter 20, this volume) has provided insight into the nature of these experiences with music. When young children have peak experiences with music, it serves as a motivational 'hook' to further their engagement with music. Participants in Sloboda's (1990) study reported having such experiences as young as seven years old, often describing them as significant in determining the course of their musical lives from that point on.

Emotional peak experiences can result from active participation in a musical experience, but can also come from the perspective of an observer and still be highly motivating toward performance. Interestingly, Sloboda found that the context of the experience (e.g. physical setting, social dynamics) is as important as, if not more so than, the musical content itself. A good example can be seen in classical guitarist Andrés Segovia's childhood account of seeing a strolling flamenco guitar player:

> At the first flourish, more noise than music burst from the strings and, as if it had happened yesterday, I remember my fright at this explosion of sounds . . . rearing from the impact, I fell over backward. However, when he scratched out some of those variations he said were *soleares*, I felt them inside of me as if they had penetrated through every pore of my body.
>
> (Segovia, 1976, p. 3)

Once young people begin pursuing increased music participation for themselves, they soon discover the emotional rewards of performance. Music making, whether alone or with others, has the potential to be an absorbing experience. A self-rewarding feeling of *flow* can be attained when people are so engaged in an activity that they lose self-consciousness, feel a merging of awareness and action, and even lose track of time (Csikszentmihalyi, 1990; see also Chapter 20, this volume). Achieving flow depends on

a balance between a person's skill level and the challenge presented in a task. If one's skill exceeds the challenge, the result is boredom; if the challenge exceeds one's skill, feelings of anxiety result. Either case leads to diminished motivation and emotional engagement for pursuing the activity. Music making offers the potential for flow to people of all ages. For example, Custodero (2002) found that musical flow experiences in early childhood tend to occur with active multi-sensory involvement, presented in a socially playful or game-like context. Flow experiences are also important in older music students' emotional well-being and securing their commitment to future musical involvement (Fritz & Avsec, 2007; O'Neill, 1999; Chapter 28, this volume).

Performing for an audience seems to offer particularly heightened emotional rewards beyond those of music making (Bailey & Davidson, 2005). These may explain why a person seeks to make music the focus of a career, as opposed to following the path of a music enthusiast or amateur, although it is undoubtedly true also that playing music for the sheer love of it can add a dimension to one's life that is deeply satisfying: the kind of 'loving play' that Booth (1999) distinguishes as the mark of a true performer whose engagement with music adds value to the quality of life lived while doing it.

While some have argued that decisions about becoming a performer typically occur as a result of social praise blended with a degree of exhibitionist impulses (e.g. Persson, 2001), and that these factors are often more pronounced in solo rather than ensemble participation (Davidson, 2002), as we will see in sections to follow, a deep connection with music both emotionally and intellectually provides the foundation from which an individual may choose to embark on an active, lifelong involvement with music.

Emotional connection with others

Much research has documented the motivational role of other people in musicians' development. Adults contribute much in the way of resources to music students, such as parents paying for an instrument and lessons, and teachers offering instruction and performance opportunities (Davidson, Howe, Moore, & Sloboda, 1996; Davidson, Sloboda, & Howe, 1996; Davidson, Sloboda, Moore, & Howe, 1998). Of course, these people are also key contributors of emotional support. Young students are more likely to continue in music if they have a parent who not only monitors their practice, but also helps them cope with the emotional difficulties that come with learning an instrument (McPherson, 2009; McPherson & Davidson, 2002). These attributes are also important in a child's connection with his or her early teachers, given evidence that high-achieving music students tend to describe their first teachers as warm, encouraging, and fun to be with (Davidson et al, 1998).

Usually when young musicians enter adolescence, they begin looking to their peers more and more. The social influence of musical peers lasts well into adulthood. Membership in a music group, be it a school ensemble or a peer-organized 'garage band', can provide a sense of belonging needed for a musician's identity development. The lives of some young people may be so occupied with music that they find it difficult to relate to non-musical peers (Burland & Davidson, 2002; Davidson et al, 1996). The simple camaraderie experienced in a music group may be no different than that found on teams and clubs organized around other activities. However, the act of group music making may

be unique in its opportunity for introspection and catharsis, perhaps adding to the emotional connection members feels with one another (Bailey & Davidson, 2002, 2005).

Of course, relationships between co-performers take time to develop and are not always marked by positive feelings. The social processes of a group are largely determined by the roles assumed by members. Larger ensembles with a designated leader, say a teacher or conductor, may not face as many interpersonal challenges during rehearsal, but still have the potential for conflict among members competing for status within the group. This is particularly evident when musical comparisons are made during the process of auditioning for a chair or stand placement in an ensemble. Smaller groups with no official authority structure undergo a 'working out' of roles as they address issues of musical coordination (timing, intonation) and performer idiosyncrasies. Successful cohesive groups tend to show characteristics of both individual leadership and democratic process (Allsup, 2003; Ford & Davidson, 2003). Members who do not like their roles with a particular group, or who do not feel valued by the others, are likely to end their involvement. The moods of individual musicians do affect a group's overall dynamic and the musical progress it will make (King, 2006). Even in a large ensemble led by a conductor, a positive group mood can be a prerequisite to enhancing ensemble performance quality (Boerner & Von Streit, 2007).

To summarize, musicians develop very close relationships with others as members of a group. The personal connections they feel with each other can add to the music-induced emotions experienced in their group activities (see Bakker, 2005, for a study of how flow experiences cross over from music teachers to their students). Group emotional experiences can be most intense during moments of performance. For example, Sawyer (2006) offered an account of the *group flow* phenomenon that occurs as jazz performers interact with one another around elements of structure and improvisation. Drawing largely from Berliner (1994), Sawyer quotes musicians who compare the 'emotional empathy' of group performance to 'lovemaking', a 'high', and 'ecstasy' (pp. 158–9). It is also noteworthy that musicians' chief mechanisms for communicating with each other during performance, eye contact and bodily gesture, are primary and natural ways that human beings express emotion (Bastien & Hostager, 1988; Poggi, 2002; Williamon & Davidson, 2002).

Nowhere are these attributes more evident than in the role of a conductor (Price & Byo, 2002). For example, one of the most famous conductors of the Berlin Philharmonic Orchestra, Wilhelm Furtwängler, has been described as a 'formidable magician, a man capable of setting an entire ensemble of musicians on fire, sending them into a state of ecstasy' (Eschenbach, no date). Such reflections highlight the level of emotional engagement demanded during rehearsals and performances of high-quality music, plus also the intense relationships that develop between members of professional ensembles whose careers depend on achieving a consistent level of excellence of a type and intensity that are rare in other disciplines.

Dropout and burnout

Unfortunately, the emotional effects of music participation are not always positive. Just as some children have peak experiences that launch them into a lifetime of music

making, others experience traumatic events centred on music involvement. These may produce feelings of anxiety and humiliation, which essentially preclude any future active participation in music (Sloboda, 1990). Even barring any such extreme episode, a young person's choice whether to continue in music is influenced by many factors. Among these, people's perceptions of themselves (e.g. their abilities and temperament) and their beliefs about the nature and value of music, are informed by the emotions they experience while engaging in music (Austin et al, 2006).

Sadly, children whose musical involvement yields feelings of boredom, guilt, or shame will probably discontinue it before attaining any appreciable level of performing ability. In contrast, relatively high-achieving students may ultimately end their music involvement without the proper emotional elements in their development. Research by Moore, Burland, and Davidson (2003) suggests that young musicians who do not enjoy positive social contact with musical peers are susceptible to 'burnout'. Instead of connecting with and drawing emotional support from peers, some students find themselves part of a 'conservatory culture' characterized by heavy criticism and competition among musicians (Kingsbury, 1988). Such an atmosphere can detract from students' intrinsic enjoyment of music, including their capacity to experience musical flow or other heightened states of emotional engagement (O'Neill, 1999).

15.2.2 Emotional motivation to practise

The positive socio-emotional effects of music making can be so rewarding that people are able to attain a level of music performance competency primarily through group activities. Many popular (or vernacular) musicians acquire their skills outside any formal context whatsoever. Green (2001) detailed the learning processes of these performers, pointing out the differences between them and the practice normally carried out by formally trained musicians. The sessions of popular musicians tended to include songs and 'riffs' (i.e. short repetitive phrases) that they wanted to learn (as opposed to exercises and literature assigned by teachers), and were often undertaken in a group setting with peers instead of isolated individual practice sessions. Despite investing much time and effort in this learning process, vernacular musicians are resistant to calling it 'practice', perhaps because they perceive it as voluntary, enjoyable, and what they love to do.

In contrast, a majority of formally trained 'classical' musicians acquire their skills through participation in school-based ensembles (as in the United States), or through the tutelage of a one-to-one private instructor (as in the United Kingdom and most parts of Europe). One negative consequence of formal training is that so few students, especially in the beginning stages of development, experience their musical practice as an enjoyable activity, and certainly not in the way that Green's sample of popular musicians described in her study. For example, in the beginning stages of learning an instrument, students typically spend most of their practice time simply playing through pieces from beginning to end, without any real evidence that they are either emotionally committed to improving their performance or intellectually curious about the pieces

they are learning (McPherson & Davidson, 2006; McPherson & Renwick, 2001). Some suggest that this is because they have not developed appropriate internal representations of the piece they are learning and may even be unaware they are making mistakes (Barrry & Hallam, 2002). Others such as Bamberger (2006) suggest that young learners are often unable to focus on 'structurally meaningful entities such as motives, figures, and phrases' (Bamberger, 1996, p. 42) or on the intimate ways of knowing (figures, felt paths, context, and function) which allow them to experience heightened feelings of emotional engagement as they learn to play. Either way, it seems a pity that the music education profession is so poorly equipped with knowledge that explains more precisely how some students become intellectually curious and emotionally engaged in the repertoire they are studying, in contrast to others who display neither of these attributes during their practice.

Renwick and McPherson (2002) provide a description of a highly efficient practice session of the type that is rarely seen in young music learners. Their analyses of videotapes of a young clarinetist's practice shows quite convincingly how little this musician (Clarissa) was emotionally engaged when practising literature assigned by her teacher, in distinct contrast to her efforts to learn a piece that she wanted to learn herself, and where the efficiency of her practice was markedly superior. During her practice of teacher-assigned repertoire, Clarissa showed little if any emotional engagement in the pieces she was learning. However, for the piece she was driven to learn herself, Clarissa was able to scaffold herself to a much higher level of functioning, as evidenced in the more varied strategies (e.g. silent fingerings, thinking, singing) she employed while practising. Most of all, the young learner's body language was more positive in this session, and she looked and sounded quite different from when she was learning her teacher-assigned repertoire.

The desire to learn by seeking to master new challenges of the type described above is considered an integral part of intrinsic motivation in *self-determination theory* (Deci & Ryan, 1985; Ryan & Deci, 2000). Applying this theory to music suggests that musicians' practising often begins as an extrinsically motivated activity (e.g. when another musician demonstrates or provides an exemplary model of the piece and how it should be played), before evolving into an intrinsically motivated desire. As people invest themselves more in something, they go beyond the initial level of *external regulation* (i.e. pure extrinsic motivation) to reach *introjected regulation*. Here, developing musicians are in part led to practice as they link it with the emotional rewards of social approval or the avoidance of personal feelings of guilt. Further internalization occurs in approaching the next level, *identified regulation*, in which 'behaviour is guided by a conscious valuing of the activity, such as when a committed young musician practises technical exercises that are far from being inherently pleasurable, but valued for their beneficial effect on technique' (Austin, Renwick, & McPherson, 2007, p. 225). At the final level of *integrated regulation*, a musician's performance activities have become such a significant part of his or her identity that practising becomes more or less second nature.

On the road to reaching high levels of intrinsic motivation, three basic psychological needs—competence, autonomy, relatedness—come into play (Deci & Ryan, 2000; McPherson, 2009). First, when musicians perceive themselves as competent, they are

more likely to engage in music at a higher level and utilize the skills and strategies they possess, in addition to persisting when they confront difficulties. Second, people have a basic need to feel autonomous, and to make independent choices about their own learning and level of engagement. As shown in the case study of the young learner described above, autonomy is related to musicians' level of intellectual curiosity and emotional engagement while they are learning and performing. Finally, people have a deep desire to feel related to others. High levels of intrinsic motivation occur when the emotional climate of the musical environment is supportive, caring, and non-threatening.

The findings outlined above have contrasted both 'formal' and 'informal' aspects of practice. In formal learning settings such as individual tuition on an instrument, both seem to be important. For example, Sloboda and Davidson (1996), in their study involving 257 school-aged students, found that high-achieving musicians tended to do significantly greater amounts of 'formal' practice, such as scales, pieces, and technical exercises, than their less successful peers. In this study, high achievers were also likely to report more 'informal' practice, such as playing their favourite pieces by ear or improvising. These 'informal' ways of practising seem to enable higher-achieving students to find the right balance between freedom and discipline in their practice (see also McPherson & Davidson, 2006; McPherson & McCormick, 1999).

To summarize then, although practice may not always be considered an enjoyable or aesthetically pleasing activity, it still offers indirect emotional reward. In the best scenario, musicians learn to see practice as a puzzle to be solved, or a challenge to be taken on. They may thrive on the prospect of learning something new and discovering the means of accomplishing it, especially in situations where they possess a strong desire to learn the piece themselves. Additionally, one's self-monitoring in practice does not end at detecting errors, but further involves devising strategies to correct them. Whereas some music students may be deterred from practice because of the temporary performance failures encountered, others seek the emotional rewards of overcoming the challenges presented.

Dweck (2000) described these two contrasting motivational patterns as *helpless-oriented* and *mastery-oriented*. Students with a helpless orientation tend to experience more negative emotions when faced with musical problems, and as a result are more likely to eventually give up on their musical pursuits (O'Neill, 1997; O'Neill & Sloboda, 1997). In contrast, a mastery-oriented musician shows a pattern of persistence and can even enjoy the challenge posed by learning a new skill. This suggests *not* that successful musicians must live without emotional reinforcement, but rather that in some situations they need to learn to appreciate delayed gratification.

15.3 Emotions in generating performance

The emotional aspects of music can be considerably different with a public performance, as opposed to performing in an informal setting. As detailed above, musicians

can draw emotional rewards from the simple act of engaging in an artistic or aesthetic endeavour. They can also enjoy the social rewards of collaborating with other musicians or informally interacting with people in a musical way. Public performance, however, introduces the potential for more intense experiences for performers. The added emotions can make performance an even more satisfying activity for musicians, or become a distracting force that undermines their enjoyment of music making.

Successful performers learn to manage their emotions before and during performances. First and foremost, they are able to mentally and physically execute the music on their instrument or voice. Not only do they want to eliminate negative emotions that will interfere (e.g. performance anxiety), but they will also need to find an emotional state for themselves that actually enhances their performance (Williamon, 2004). Especially in a public performance, musicians' moods and emotional states can affect how well they can focus on a performance task at hand, recall what they have practised, and physically execute the motor skills needed (recall the discussion of *flow* in section 15.2.1). Beyond this, performers need to also consider the experience of the audience, and communicate their own emotional intentions into a performance that will evoke an emotional response from listeners. In this regard, newly emerging evidence is starting to define the types of brain activation of performers during solo memorized (Parsons, Sergent, Hodges, & Fox, 2005) and improvised performances (Brown et al, 2008), to reveal more precisely the extent to which performers who give the appearance of being engaged emotionally in music are in fact actually emotionally committed. Such research has the potential to shape future thinking about the process of musical performance and how performers can project more vivid interpretations of the music they are performing for their audience.

15.3.1 Preparing for a performance

There are numerous factors that determine a musician's mental preparations for public performance, as well as the mindset possessed upon entering the stage. Some factors relate to musicians' general beliefs about music and their basic enjoyment of singing or playing their instruments. Added to this, however, are other social and self-image factors. People's attitudes about themselves and others can greatly affect how they feel when putting themselves 'on display'. In some cases, the emotions surrounding a performance are marked by fear and worry, such that a musician who otherwise loves music and enjoys making it will avoid doing it before an audience. Kenny (Chapter 16, this volume) explores this phenomenon in depth, specifically identifying how musicians' negative emotions contribute to performance anxiety and how addressing them is involved in treatment.

The presence of an audience introduces yet another emotional factor in a performer's music making. As suggested earlier, most people initially pursue music performance for hedonic (i.e. emotionally self-satisfying) motives, and their involvement is further reinforced by emotional connections with other musicians. Public performance requires musicians to consider the emotions of the audience and the task of

affecting them through music. This can, of course, divert performers' attention from what they can control to what they cannot. In large part, successful management of emotions prior to performance hinges on musicians being able to focus their attention on the musical tasks at hand.

The prospect of an upcoming public performance can be exciting. For many musicians, the very thought of it acts as a 'call to action' to their autonomic nervous systems, resulting in physiological arousal. In the case of performance anxiety, the autonomic arousal constitutes a 'fight or flight' defence mechanism, reflecting a musician's perception of a performance situation as a threat. But not all physiological arousal is detrimental to performance. There is a level of optimal arousal that enhances the performance quality (Lehmann, Sloboda, & Woody, 2007; Wilson & Roland, 2002; see also Chapter 16, this volume). The mental and physical demands of music performance require some degree of physiological readiness, although the exact level can vary greatly according to the nature of the performance task.

Autonomic arousal is obviously involved in the experience of emotion (see Chapter 11, this volume). Although musicians may notice the physical symptoms (e.g. racing heartbeat, muscle tension) mostly right before and during a performance, the cognitive symptoms can manifest themselves days or weeks beforehand. These have the potential to interfere with musicians' emotional well-being during performance preparations, not to mention their ability to focus on expressive musical aspects during practice. Because over-arousal is a common pre-performance issue for musicians, Connolly and Williamon (2004) recommended that relaxation exercises be a part of mental skills development. They additionally documented the benefits of mental rehearsal and visualization techniques in music performance training. The ultimate purpose of such approaches is to enable a musician to 'guide oneself consistently into a calm, focused, flexible, goal-oriented state of mind' (p. 241).

This suggests that during performance preparations, musicians' emotional energies should be focused on the emotions involved in the music making, as opposed to the emotions surrounding the performance and its consequences. This is not always easy for musicians to do, after enjoying the applause and praise following previous performance successes. Whether a performer's focus is on the musical task or the socio-emotional rewards of success relates to goal orientation toward performance (Maehr, Pintrich, & Linnenbrink, 2002). People whose goals are *task involved* see practice sessions as opportunities to build toward self-set standards; they see performances as special 'check points' or demonstrations of the new skills they wanted to acquire. In contrast, musicians with *ego-involved* goals see their skill development as a contributor to their social status; keeping in mind that they (and their musical skills) are being judged by others, they see performances as opportunities for positive recognition or embarrassment. Of course, most musicians' performance goals are neither *purely* task nor ego involved. It is simply human for people to care about what others think of them. The use of these categories, however, may prompt musicians to examine the focus of their attention during performance preparations. While neither goal orientation promises to deliver a more successful public performance, each seems to offer a different emotional experience for the musicians involved.

Other research suggests that ego involvement—at least some form of it—is a constructive part of the emotional experiences of performers. A belief in one's musical ability is considered a key ingredient to performance success. *Self-efficacy* is the 'conviction that one can successfully execute the behavior required to produce the outcome' (Bandura, 1997, p. 79). Research in music education has shown self-efficacy to be highly predictive of performance achievement (McCormick & McPherson, 2003; McPherson & McCormick, 2006). For a performer, as compared to say an amateur musician, the ultimate task is not just making music, but doing it for an audience. They believe not only in their ability to play or sing well, but in their ability to do it 'in the spotlight'. In many cases, performers actively seek opportunities to do this, largely because of the great emotional rewards of public performance. To describe this performer mentality, Davidson (2002) drew upon her own experiences as a solo classical singer, explaining, 'I feel positive about going on stage and presenting myself to an audience. I do it for the challenge and the thrill of the situation, coupled with a love of music' (p. 98). So whether performers are driven to express a musical message that is important to them (task-involved goal), or impress others with their skills (ego-involved), they must have utmost confidence in their own abilities and want to share these with an audience.

In the moments prior to taking the stage, performers can experience a great deal of physiological arousal that, if left unchecked, can undermine the confidence built over the course of their preparations. To deal with this, some musicians develop pre-performance routines that allow them to arrive at an ideal mental and emotional state at concert's start (Partington, 1995). Perhaps several days in advance, performers begin paying closer attention to their physical health (e.g. nutrition, sleep) and increasing their use of relaxation and visualization techniques. In the minutes just before performance, it is common for musicians to try to create a mood that is fitting to express the music they are about to play.

15.3.2 Approaches to expressivity

Eliminating negative emotions and other hindrances to performance is only half the battle. Most would agree that a performer's ultimate goal is to produce music that engenders an emotional response from listeners. Musicians face the task of infusing the pitches and rhythms of their music performance with expressive qualities that communicate their own feelings or emotional ideas (see Chapter 17, this volume). Additionally, those in the Western classical tradition are expected to understand and realize in their performance (i.e. 'be true to') the expressive intentions of the composer. Of course, any musical message or performer feelings will not be received by the audience unless they are manifested as acoustic properties and, in the case of a live performance, visual cues. As described below, musicians go about doing this in a variety of ways.

Self-induced felt emotion

Many musicians strive to make their performances expressive through no strategic or technical means, but by focusing on their own felt emotion while performing

(Laukka, 2004; Lindström, Juslin, Bresin, & Williamon, 2003). In what Persson (2001) called *mood induction*, a performer may consciously recall specific personal memories in order to experience emotions (while performing) appropriate for the music. It is a common belief among many musicians that a performance is not truly expressive unless the performers themselves actually *feel* the emotions they intend to communicate in their music. Classical composer C.P. E. Bach asserted, 'A musician cannot move others unless he too is moved' (Bach, 1778/1985, as cited in Persson, 2001). Within this approach to expressivity, not only is performer-felt emotion required, it is solely sufficient for producing an expressive performance. Musicians may object to attention to acoustic sound properties or advanced planning of expressive devices (e.g. crescendos, ritardandos) for fear of their performances sounding contrived or uninspired. The college musicians in a study by Woody (2000) talked of learning to 'feel the music' and 'use your soul', in order to avoid 'simulating' expressivity by merely manipulating elements like tempo and dynamics (see also Lindström et al, 2003).

When musicians simply focus their mental energies on 'mustering up' felt emotions, how does that affect their performance? First, there is the possibility that their performance actually is *not* affected, that their *expectations* bias their perception (Repp, 1992; Woody, 2002b). In other words, because they intend to be expressive, they believe they hear it in their performances. It is also possible that the expressive features in their performances are automatically applied conventions of 'musicality', rather than the result of felt emotion (Woody, 2003). Expressive conventions such as 'tapering the phrase' are so ingrained in advanced musicians that they perform them unintentionally (and in fact, are often unable to suppress them).

This is not to say, however, that emotion-induced musical expression is merely a myth. Clearly, emotion affects psychological and physical functioning, which in turn can shape musical behaviour and sound. In everyday life, human beings naturally—and in some cases universally—express emotions in their facial countenance, body carriage, and voice usage. Important examples are the mother–child interactions during the first months after birth, which possess a music-like rhythmic and melodic quality. Malloch (2000) describes these interactions as *communicative musicality*, because they entail 'dance-like' gestures involving vocalizations, facial expressions, and bodily movements. In a similar vein, Trehub and Trainor (1998) describe how mothers will sing play songs to create a unique performance style that projects positive feelings to their infant (see also Chapter 23, this volume).

In musical performances, physical manifestations can affect production aspects of music performance, which include (depending on musical instrument) stroke technique, embouchure, breath support, and vocalization. An obvious example is the jazz musician whose vocalizing includes moans and sighs as she 'sings the blues'. In fact, it is likely that the acoustic cues of musical expression are generally informed by human vocal expression of emotion (Juslin, 1997; Juslin & Laukka, 2003; see Chapter 17, this volume). Of course, live performance also allows an audience to see musicians' facial and bodily demonstrations of felt emotion. A wealth of research by Jane Davidson and colleagues shows that such physical gestures tend to coincide with performers' intentions for musical expression, and that these visual cues may in some instances be more

communicative to audience members than the sound properties (e.g. Davidson, 1993, 2005; Davidson & Correia, 2002).

It is unlikely, however, that any performer relies solely on felt emotion in generating musical expression. There is a developmental process by which young musicians acquire the skill of translating their own emotional experience into expressive sound cues that would be perceived by listeners. Based on their review of research at the time, Sloboda and Davidson (1996) proposed that performers develop their emotional 'intuition' through a process of expressive trial and error. In trying out a variety of interpretations of, say, a particular melody, a musician monitors his or her own emotional reaction to the sound. This kind of emotional monitoring also often takes place as a music student works closely with a teacher and hears expert performance models provided. Research shows that one-to-one private instruction is a primary means by which music students acquire expressive performance skills (Woody, 2000, 2003), and that aural modeling is a popular approach used therein (Laukka, 2004; Lindström et al, 2003). Within this context students learn to link emotional terminology with producible sound possibilities on their instruments. During the process, music students' well-developed emotional reactivity may aid their building a repertoire of musical expressions of emotions. Instead of having to remember vast amounts of aural performance information, they can abstract it into more manageable 'extramusical templates' based on familiar emotional expressions or gestures (Sloboda, 1996). For example, it may be easier for a performer to memorize an image of an ocean wave swelling and crashing on the shore, as opposed to the equivalent timing and loudness qualities of an accelerando–crescendo combination.

Imagery and metaphor

Musicians often bring to mind imagery in order to evoke emotions for performance. Using what Persson (2001) calls *visualization*, a performer might conjure up a powerful visual image (e.g. a frightened child), or imagine being involved in an emotional scenario (e.g. hearing of a loved one's death). Many music teachers are firm advocates of this approach, and regularly offer instruction to students in the form of metaphors and imagery examples (e.g. Karlsson & Juslin, 2008; Lindström et al, 2003; Woody, 2000). While most experienced musicians seem to be able to accommodate this approach (Sheldon, 2004; Woody, 2006b), it is not without the potential for problems. If a teacher's imagery examples are perceived as too vague or unfamiliar, misunderstandings result (Karlsson & Juslin, 2008). At worst, teachers risk confusing and discouraging students if they are unable to relate to the imagery offered (Persson, 1996).

This calls to question exactly what happens in the mind of musicians when presented with an imagery example. Woody (2006a) provided imagery examples to college instrumentalists, who then reported their thoughts while working up expressive performances. At issue was whether the musician used an 'intuitive' felt-emotion approach, or utilized a cognitive strategy of translating the imagery into an explicit plan for the sound properties of performance. The results showed that both broad approaches were used. For example, one imagery example in the study (offered for a Schubert melody) was 'Bouncy and happy; rustic, as if you're a happy peasant, with no

cares or worries, strolling along, singing a song'. One participant, identified as using a felt-emotion approach, prepared his performance only by thinking 'Light, free . . . happy thoughts', and further personalized the image, reporting, 'I'm reminded of walking out of the gymnasium after receiving my diploma from high school' (p. 131). In contrast, a different musician reported thinking, '. . . a bouncy feel, but making a line out of it. I put a crescendo through the first four eighth notes, slurred the first two sixteenth notes to give them something' (p. 131).

Most interesting in the study was the finding that a purely felt-emotion approach tended to be used by the least and most experienced musicians. Those musicians in the middle range of experience tended to use the cognitive translation process. Their explicit attention to sound properties such as loudness, tempo, and articulation may represent a 'bridge' between the naïve use of felt emotion (which may or may not result in perceptible expressivity) and the most advanced musicians' use of the approach, which has essentially automatized the cognitive translation process. In other words, experienced musicians develop a repertoire of performance-directed emotions. By mentally dwelling on an imagery example and the evoked emotion, they have access to appropriate expressive performance devices stored in memory. This theory brings to mind Sloboda's (1996) notion of 'extramusical templates' mentioned above.

In all likelihood, a felt-emotion approach to performance occurs in conjunction with other approaches to expressivity. As musicians develop, they hear many imagery examples, experience emotional responses to expert aural models, and learn conventions for expressive properties like loudness, tempo, and articulation. Through all these sources, a musician's own emotional reactivity may be key. In a discussion of how aural modeling and mental imagery interact, Davidson (1989) suggested that a 'metaphor creates an affective state within which the performer can attempt to match the model' (p. 95). The *mood congruency* theory of memory indicates that cognitive function is affected by emotional experience. Specifically, information encoded while in a particular mood is most readily recalled and conveyed later while in the same mood (Waterman, 1996). Houston and Haddock (2007) found that that memory for music is enhanced by being in a mood (positive versus negative) that matches the valence of music being worked with (major versus minor). Thus, if musicians have a memory of a performance that evoked an emotional response in them, such as of a teacher or admired professional performer, they are best able to bring that model to mind (in order to guide their own performance) if they put themselves in the right mood (see also Woody, 2000).

15.4 Personal factors and performer emotion

Given the uniqueness of a performing musician's activities, one might wonder if it takes a particular kind of person to succeed as a performer. Given the integral role of emotion in music performance, one might also wonder about the types of emotional

problems musicians typically encounter as a result of their lifestyle. These two facets are discussed below.

15.4.1 Personality traits

Many research studies have examined the personality traits of musicians, and based on their results, it is safe to say there is no single 'performer personality'. It is possible, however, to identify some connections and tendencies within the personalities of musicians. Kemp (1996) offered the most comprehensive look at this topic, and is the main source of what follows in this section.

There is some evidence that musicians have an anxious disposition in general. This *trait anxiety*, probably the product of both biological and environmental factors, may be especially common among classical musicians. There are two correlates of trait anxiety that provide insight into musicians of this type. First, *perfectionism* is a characteristic defined by unrealistically high expectations. This is not the admirable quality of having high performance standards, but an irrational concern about minor mistakes and inconsistencies. It is easy to see how some musicians may take on this attribute, given the amount of time spent in rehearsals and individual practice, where a primary activity is the identification of errors. Second, musicians tend to score high in measures of *neuroticism*, or emotional instability. In some respect, this trait also makes sense for musicians, who often rely on a great breadth of felt emotions to guide their performance expressivity. Neuroticism is often manifested in mood swings and strained personal relationships.

The trait anxiety of classical musicians bears similarity to social anxiety (Chapter 16, this volume). This is related to their tendency for higher levels of introversion. Introverts naturally keep their feelings to themselves, and tend to be independent and self-sufficient. Considering the hours of isolated practice expected of classical performers, this could be viewed as an adaptive trait. Even the expressive performance conventions in classical music are relatively reserved (compared to other styles), dealing with nuances of sound and formal stage etiquette. In contrast, popular musicians tend to be extroverted, and more comfortable in social environments. This too would be facilitative of their performing style, marked by demonstrative musical effects and physical movements.

Musicians also tend to score high in measures of sensitivity, imagination, and intuition. Taken together, these characteristics help performers tap into the symbolic and emotional aspects of music. This general quality is particularly interesting when combined with the introversion of many classical musicians. The result is that 'musicians often conceal the very thing that motivates them most highly, thus obscuring their raison d'être and rendering them somewhat enigmatic to others, particularly of another type' (Kemp, 1996, p. 84).

15.4.2 Emotional problems

While the emotional intensity of musicians can contribute to performance, it can also make them susceptible to problems in their personal lives. Research has shown that

some musicians experience high levels of occupational stress. The distinctive challenges and conditions of a music career can make it especially difficult for them to detach themselves from their work (Spahn, Strukely, & Lehmann, 2004). It is possible to identify a number of common sources of stress (James, 2000; Sternbach, 1995; Wills & Cooper, 1988). Perhaps foremost is the general employment insecurity and financial strain that some performers face. As an outgrowth, they may struggle to find time for practice while balancing the demands of work and personal commitments. Difficulties with marriage and family relationships can result, which themselves amount to additional sources of stress. Time-related stressors also include the late hours of some performance 'gigs', the extended rehearsals that sometimes precede them, and the time spent travelling to and from. As mentioned earlier, some rehearsal environments are marked by much musical criticism and interpersonal conflicts with co-performers.

Stress can be particularly problematic for musicians as it can physically impair their performance. Emotional stress is usually manifested in the body as excessive muscle tension, which presents an added danger to instrumentalists already at risk of overuse injuries. It can also be an aggravating factor in musicians' development of focal dystonia, a condition of involuntary muscular contraction and incoordination (Jabusch & Altenmüller, 2004). Such problems can lead to a vicious circle, as physical impediments to performance cause additional stress. Moreover, sometimes the only solution is a complete stoppage of performing (including practice), a course of action that many musicians are unable or unwilling to take.

The most serious emotional problems experienced by musicians are mood disorders. While it is difficult to establish whether musicians are at greater risk of these, it has been suggested that careers in the arts, as opposed to other more regulated professions, are more inclusive of emotionally unstable people (Ludwig, 1995). The most common mood disorder is *depression*, which is characterized by extended periods of overwhelming sadness. Although there has not been a great deal of research on the incidence of depression among musicians, surveys studies suggest that approximately 20 per cent of musicians suffer from depression (Brodsky, 1995; Raeburn, 2000). Substance abuse is a frequent symptom of depression, and may be a unique problem for musicians. Drug and alcohol use may actually be valued within some musicians' social environments and readily available where they perform. Although the exact prevalence of abuse is unclear, some believe the problem is widespread among certain populations of musicians (Chesky & Hipple, 1999; Raeburn, 2000).

The rarer *bipolar disorder* involves alternations between heightened moods, called manic episodes, and periods of major depression (this disorder was previously referred to as 'manic-depression' among mental health professions). In manic episodes, people experience intense feelings of euphoria, and sometimes a frenetic drive to plan and accomplish grandiose things. A number of eminent composers and music performers have been identified as bipolar, producing much debate about a relationship between 'genius and madness', such as in the case of Robert Schumann whose emotional problems have been documented and discussed at considerable length (Slater & Meyer, 1959; Weisberg, 1994). Another example is Gustav Mahler, who rather famously consulted with Sigmund Freud about his own psychological problems. Research has

focused on the question of whether the elevated mood of bipolar disorder coincides with increased creative productivity among artists (including musicians). For example, Jamison (1993) presented biographical and scientific evidence of a 'vastly disproportionate rate' of mood disorders among artists, compared to the general population (p. 5). It is unlikely, however, that extreme moods or a hypersensitivity to emotion facilitates artistic creativity. Instead, mood elevation may be conducive to several psychological factors of creativity, such as an ability to generate many and varied ideas, an openness to new approaches, and stronger self-confidence and persistence (Kinney & Richards, 2007).

Clearly, the life of a performing musician can be emotionally demanding. The work-related and personal stressors may be exacerbated by the prominent role of felt emotion in a performer's day-to-day activities. It is unclear to what extent musicians avail themselves of proper resources for dealing with emotional problems. In a study of health problems among conservatoire students, Williamon and Thompson (2006) found that these musicians most often consulted their instrumental teachers for psychological (and physical health-related) advice, over medical practitioners. It is likely that most musicians would benefit from increased awareness of potential mental health risks and strategies for prevention (Sataloff, Brandfonbrener, & Lederman, 1998).

15.5 Conclusion

We began our chapter with a quote by Neuhaus describing the intense emotional commitment required for performance at the highest levels, which we then used to frame this survey of emotion in the lives of performers. Overall, we organized the content of the chapter in terms of the emotions involved during the act of making music, as compared to the emotional reactions that performers experience during everyday life and in their communication with others more generally.

For young, developing musicians, there is clear evidence that the emotional climate in which learning takes place is of critical importance. In formal contexts, early teachers tend to be more successful when they provide a learning environment that is warm and encouraging, and emotionally supportive. Likewise, in early through to advanced stages of development, we know also that learners are best placed to progress if their practice balances playing to improve with playing for pleasure. This feature is a distinguishing characteristic of highly skilled musicians who have typically learned to 'focus more on the pleasurable aspects of practice (e.g. phrasing, dynamics, expressiveness, etc.) and less on the taxing requirements of skill acquisition that challenge less experienced players' (Williamon & Valentine, 1998, p. 327).

Musicians whose performances focus on informal contexts such as pop groups or jazz ensembles often develop very close bonds with their peers that can add to the music-induced emotions they experience individually and collectively. We cited

examples of the group flow that occurs in jazz ensembles, but that would be typical also of all other types of ensembles, where the emotional empathy within the group's performance can be as intense to them as making love and feeling high. Importantly also, we showed that the primary and most natural ways that humans express emotion is through eye contact and bodily gestures, which are features of all performance, be it solo or ensemble. All of this can go wrong however, when musicians do not like their roles within the group or do not feel valued by others. Many successful ensembles become stale and eventually break up because the emotional climate in which they perform is fraught with negative in-fighting within the group that ultimately impacts on the level of commitment and time individual members are willing to invest in continuing their participation.

In all forms of musical exposure and interaction, two ingredients seem especially important to explaining the intense and deeply personal ways in which music shapes performers' lives: intellectual curiosity and emotional engagement. When these two ingredients are blended together, we see powerful examples of efficient and effective musical practice and performance, such as our examples of children whose practice is highly efficient (e.g. Clarissa, reported earlier), and also in the many descriptions of expert musicians we have described throughout this chapter.

At the uppermost extremities, something very special happens in the life of the most outstanding performers, something that Michael Tilson Thomas (2008) expressed eloquently in his reflection on fellow conductor Leonard Bernstein:

> His conception of a performance was that it should reveal the emotional states that the composer had experienced as the work was created. For him, that meant being totally emotionally and physically involved. It was compulsive! He felt he wasn't really doing his best unless he was swaying on the precipice of his endurance. Whether he was conducting Mahler or playing a Haydn trio it was the same; oceans of sweat, fluttering eyes, hyper-reactive athleticism. He'd get a bemused far-away look that seemed to gaze off beyond the horizon into the spirit of the music itself. It was extreme, but he'd been like this for such a long time no one noticed anything strange about it. It's what they expected. But, make no mistake. None of this was put on. It was his authentic essential experience of music and of life. It couldn't be otherwise. Whatever he had to do to achieve it, maintain it, he did. The public loved it, understanding it was all part of the supreme sacrifice of himself he was making for them.

All of the above helps frame an understanding of the role emotions—both positive and negative—play in the lives of performers. In closing however, it would be remiss of us not to emphasize how little research there is on this topic, and how much more needs to be done to provide real evidence of the range of factors, situations, and contexts in which emotions either hinder or enhance music making. Unlike other areas of music, the research base on this topic is not extensive, and there is much we need to do in order to extend current knowledge. In our opinion, many fruitful options remain to be explored, such as parallels in other areas of the performing arts where similar discussions attempt to understand the role of emotion in the lives of actors and dancers. Noice and Noice (2006) for example, suggest that the 'affect of an actor during performance is highly complex and includes feelings of both the actor-as-character and actor-as-actor' (p. 495). They describe how many actors report using emotional

events outside the theatre 'to feed into and color their performances' (p. 495), and use the example of the 'avowedly technical "anti-method" actor', Laurence Olivier, whom they quote as stating that acting is 'an emotional problem. You've got to feel it, a great test for the imagination' (p. 495).

In a similar manner to the studies on actors described by Noice and Noice, our profession's finest musicians do not always give emotionally moving performances every time they appear on stage, and such fluctuations are not easily attributed to training, experience, motivation or practice, but are part of the 'mystery of artistic endeavour' (p. 501). Explaining these mysteries in the performing arts will not only entail a great deal more research, but also require distinctly different interdisciplinary approaches than researchers have incorporated into their research to date. We look forward to following the discussions about this topic as they evolve further during the years ahead.

Recommended further reading

1. Austin, J., Renwick, J., & McPherson, G. E. (2006). Developing motivation. In G. E McPherson (ed.), *The child as musician: A handbook of musical development* (pp. 213–238). Oxford: Oxford University Press.
2. Williamon, A. (ed.). (2004). *Musical excellence: Strategies and techniques to enhance performance.* Oxford, UK: Oxford University Press. (See in particular chapters 1, 4, and 12.)
3. Woody, R. H. (2006). Musicians' cognitive processing of imagery-based instructions for expressive performance. *Journal of Research in Music Education, 54,* 125–137.

References

Allsup, R. E. (2003). Mutual learning and democratic action in instrumental music education. *Journal of Research in Music Education, 51,* 24–37.

Austin, J., Renwick, J., & McPherson, G. E. (2006). Developing motivation. In G. E. McPherson (ed.), *The child as musician: A handbook of musical development* (pp. 213–38). Oxford: Oxford University Press.

Bach, C. P. E. (1985). *Essay on the true art of playing keyboard instruments* (W. J. Mitchell, ed. and trans.). London: Eulenburg Books. (Originally published 1778)

Bailey, B. A., & Davidson, J. W. (2005). Effects of group singing and performance for marginalized and middle-class singers. *Psychology of Music, 33,* 269–303.

Bakker, A. B. (2005). Flow among music teachers and their students: The crossover of peak experiences. *Journal of Vocational Behavior, 66,* 26–44.

Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York: W. H Freeman and Company.

Barry, N., & Hallam, S. (2001). Practice. In R. Parncutt & G. E. McPherson (eds), *The science and psychology of music performance: Creative strategies for teaching and learning* (pp. 151–66). Oxford: Oxford University Press.

Bastien, D. T., & Hostager, T.J. (1988). Jazz as a process of organizational innovation. *Communication Research, 15,* 582–602.

Berliner, P. (1994). *Thinking in jazz: The infinite art of improvisation.* Chicago. IL: University of Chicago Press.

Boerner, S., & Von Streit, C. F. (2007). Promoting orchestral performance: The interplay between musicians' mood and a conductor's leadership style. *Psychology of Music, 35,* 132–43.

Booth, W. (1999). *For the love of it: Amateuring and its rivals.* Chicago, IL: The University of Chicago Press.

Brodsky, M. (1995). Blues musicians' access to health care. *Medical Problems of Performing Artists, 10,* 18–23.

Brown, S., Martinez, M. J., & Parsons, L. M. (2006). Music and language side by side in the brain: A PET study of generating melodies and sentences. *European Journal of Neuroscience, 23,* 2791–2803.

Burland, K, & Davidson, J. W. (2002). Training the talented. *Music Education Research, 4,* 121–40.

Chesky, K., & Hipple, J. (1999). Musicians' perceptions of widespread drug use among musicians. *Medical Problems of Performing Artists, 14,* 187–95.

Connolly, C., & Williamon, A. (2004). Mental skills training. In A. Williamon (ed.), *Musical excellence: Strategies and techniques to enhance performance* (pp. 221–45). Oxford: Oxford University Press.

Custodero, L. A. (2002). Seeking challenge, finding skill: Flow experience and music education. *Arts Education Policy Review, 103,* 3–9.

Davidson, J. W. (1993). Visual perception of performance manner in the movements of solo musicians. *Psychology of Music, 21,* 103–13.

Davidson, J. W. (2002). The solo performer's identity. In R. MacDonald, D. J. Hargreaves, & D. Miell (eds), *Musical identities* (pp. 97–113). Oxford: Oxford University Press.

Davidson, J. W. (2005). Bodily communication in musical performance. In D. Miell, R. MacDonald, & D. J. Hargreaves (eds), *Musical communication* (pp. 215–37). Oxford: Oxford University Press.

Davidson, J. W., & Correia, J. S. (2002). In R. Parncutt & G. E. McPherson (eds), *The science and psychology of music performance: Creative strategies for teaching and learning* (pp. 237–50). Oxford: Oxford University Press.

Davidson, J. W., Howe, M. J. A., Moore, D. G., & Sloboda, J. A. (1996). The role of parental influences in the development of musical performance. *British Journal of Developmental Psychology, 14,* 399–412.

Davidson, J. W., Sloboda, J. A., & Howe, M. J. A. (1996). The role of parents and teachers in the success and failure of instrumental learners. *Bulletin of the Council for Research in Music Education, 127,* 40–44.

Davidson, J. W., Sloboda, J. A., Moore, D. G., & Howe, M. J. A. (1998). Characteristics of music teachers and the progress of young instrumentalists. *Journal of Research in Music Education, 46,* 141–60.

Davidson, L. (1989). Observing a yang ch'in lesson: Learning by modeling and metaphor. *Journal of Aesthetic Education, 23,* 85–99.

Deci, E. L, & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior.* New York: Plenum.

Deci, E. L., & Ryan, R. M. (2000). The 'what' and 'why' of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11,* 227–68.

Dweck, C. S. (2000). *Self-theories: Their role in motivation, personality and development.* Philadelphia, PA: Psychology Press.

Eschenbach, C. (no date). Biography and photos. Retrieved from Christoph Eschenbach's web page: http://www.christoph-eschenbach.com/index.php?lid=en&cid=2.2&pid=2

Ford, L., & Davidson, J. W. (2003). An investigation of members' roles in wind quintets. *Psychology of Music, 31*, 53–74.

Fritz, B. S., & Avsec, A. (2007). The experience of flow and subjective well-being of music students. *Horizons of Psychology, 16*, 5–17.

Green, L. (2001). *How popular musicians learn: A way ahead for music education*. Aldershot, UK: Ashgate.

Hallam, S. (1997). Approaches to instrumental music practice of experts and novices. In H. Jørgensen & A. C. Lehmann (eds), *Does practice make perfect? Current theory and research on instrumental music practice* (pp. 89–107). Oslo, Norway: Norges musikkhøgskole.

Houston, D., & Haddock, G. (2007). On auditing auditory information: The influence of mood on memory for music. *Psychology of Music, 35*, 201–12.

Jabusch, H., & Altenmüller, E. (2004). Anxiety as an aggravating factor during onset of focal dystonia in musicians. *Medical Problems of Performing Artists, 19*, 75–81.

James, I. M. (2000). Survey of orchestras. In R. Tubiana & P. C. Amadio (eds), *Medical problems of the instrumentalist musician* (pp. 195–201). London: Martin Dunitz.

Jamison, K. R. (1993). *Touched with fire: Manic depressive illness and the artistic temperament*. New York: Simon and Schuster.

Jørgensen, H. (2004). Strategies for individual practice. In A. Williamon (ed.), *Musical excellence: Strategies and techniques to enhance performance* (pp. 85–104). Oxford: Oxford University Press.

Juslin, P. N. (1997). Emotional communication in music performance: A functionalist perspective and some data. *Music Perception, 14*, 383–418.

Juslin, P. N., & Laukka, P. (2003). Communication of emotions in vocal expression and music performance: Different channels, same code? *Psychological Bulletin, 129*, 770–814.

Karlsson, J., & Juslin, P. N. (2008). Musical expression: An observational study of instrumental teaching. *Psychology of Music, 36*, 309–34.

Kemp, A. E. (1996). *The musical temperament: Psychology and personality of musicians*. Oxford: Oxford University Press.

King, E. C. (2006). The roles of student musicians in quartet rehearsals. *Psychology of Music, 34*, 262–82.

Kinney, D. K., & Richards, R. L. (2007). Artistic creativity and affective disorders: Are they connected? In C. Martindale, P. Locher, & V. M. Petrov (eds), *Evolutionary and neurocognitive approaches to aesthetics, creativity and the arts* (pp. 225–37). Amityville, NY: Baywood Publishing Company.

Laukka, P. (2004). Instrumental music teachers' views on expressivity: A report from music conservatoires. *Music Education Research, 6*, 45–56.

Lehmann, A. C., Sloboda, J. A., & Woody, R. H. (2007). *Psychology for musicians: Understanding and acquiring the skills*. Oxford: Oxford University Press.

Lewis, M., & Sullivan, M. W. (2005). The development of self-conscious emotions. In A. J. Elliot & C. S. Dweck (eds), *Handbook of competence and motivation* (pp. 185–201). New York: Guilford Press.

Limb, C. J., & Braun, A. R. (2008). Substrates of spontaneous musical performance: An fMRI study of jazz improvisation. *PLoS One, 3*, 1–9, e1679.

Lindström, E., Juslin, P. N., Bresin, R., & Williamon, A. (2003). 'Expressivity comes from within your soul': A questionnaire study of music students' perspectives on expressivity. *Research Studies in Music Education, 20*, 23–47.

Ludwig, A. M. (1995). *The price of greatness: Resolving the creativity and madness controversy*. New York: Guilford.

Maehr, M. L., Pintrich, P. R., & Linnenbrink, E. A. (2002). Motivation and achievement. In R. Colwell & C. Richardson (eds), *The new handbook of research on music teaching and learning* (pp. 348–72). Oxford: Oxford University Press.

Malloch, S. (2000). Mothers and infants and communicative musicality. *Musicæ Scientiæ, Special Issue 1999–2000*, 29–57.

Maslow, A. H. (1968). *Toward a psychology of being* (2nd edn). New York: Van Nostrand Reinhold.

McCormick, J., & McPherson, G. E. (2003). The role of self-efficacy in a musical performance examination: An exploratory structural equation analysis. *Psychology of Music, 31*, 37–51.

McPherson, G. E. (2009). The role of parents in children's musical development. *Psychology of Music, 37*, 91–110.

McPherson, G. E., & Davidson, J. W. (2002). Musical practice: Mother and child interactions during the first year of learning an instrument. *Music Education Research, 4*, 141–56.

McPherson, G. E., & McCormick, J. (2006). Self-efficacy and music performance. *Psychology of Music, 34*, 322–66.

McPherson, G. E., & Renwick, J. M. (2001). A longitudinal study of self-regulation in children's musical practice. *Music Education Research, 3*, 169–86.

Mithen, S. (2006). *The singing neanderthals: The origins of music, language, mind, and body*. Cambridge, MA: Harvard University Press.

Neuhaus, H. (1973). *The art of piano playing* (K. A. Leibovitch, trans.). London: Barrie & Jenkins.

Noice, H., & Noice, T. (2006). Artistic performance: Acting, ballet, and contemporary dance. In K. A. Ericsson, N. Charness, P. J. Feltovich, & R. R. Hoffman (eds), *The Cambridge handbook of expertise and expert performance* (pp. 489–503). Cambridge, UK: Cambridge University Press.

O'Neill, S. A. (1997). The role of practice in children's early musical performance achievement. In H. Jørgensen & A. C. Lehmann (eds), *Does practice make perfect: Current theory and research on instrumental music practice* (pp. 53–70). Oslo, Norway: Norges musikkhøgskole.

O'Neill, S. A. (1999). Flow theory and the development of musical performance skills. *Bulletin of the Council for Research in Music Education, 141*, 129–34.

O'Neill, S. A., & Sloboda, J. A. (1997). The effects of failure on children's ability to perform a musical test. *Psychology of Music, 25*, 18–34.

Panzarella, R. (1980). The phenomenology of aesthetic peak experiences. *Journal of Humanistic Psychology, 20*, 69–85.

Parsons, L. M., Sergent, J., Hodges, D. A., & Fox, P. T. (2005). Brain basis of piano performance. *Neuropsychologia, 43*, 199–215.

Persson, R. S. (2001). The subjective world of the performer. In P. N. Juslin & J. A. Sloboda (eds), *Music and emotion: Theory and research* (pp. 275–89). Oxford: Oxford University Press.

Persson, R. (1996). Brilliant performers as teachers: A case study of commonsense teaching in a conservatoire setting. *International Journal of Music Education, 28*, 25–36.

Poggi, I. (2002). The lexicon of the conductor's face. In P. McKevitt, S. O. Nualláin, & C. Mulvihill (eds), *Language, vision and music: Selected papers form the 8th International Workshop on the Cognitive Science of Natural Language Processing, Galway, Ireland 1999* (pp. 271–84). Amsterdam, The Netherlands: John Benjamins.

Price, H., & Byo, J. M. (2002). Rehearsing and conducting. In R. Parncutt & G. E. McPherson (eds), *The science and psychology of music performance: Creative strategies for teaching and learning* (pp. 335–52). Oxford: Oxford University Press.

Raeburn, S. (2000). Psychological issues and treatment strategies in popular musicians: A review: Part 2. *Medical Problems of Performing Artists, 15*, 6–17.

Renwick, J. M., & McPherson, G. E. (2002). Interest and choice: Student-selected repertoire and its effect on practising behaviour. *British Journal of Music Education, 19*, 173–88.

Repp, B. H. (1992). A constraint on the expressive timing of a melodic gesture: Evidence from performance and aesthetic judgment. *Music Perception, 10*, 221–42.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*, 68–78.

Sawyer, R. K. (2006). Group creativity: Musical performance and collaboration. *Psychology of Music, 34*, 148–65.

Sataloff, R. T., Brandfonbrener, A. G., & Lederman, R. J. (1998). *Performing arts medicine* (2nd edn). San Diego, CA: Singular.

Segovia, A. (1976). *Andrés Segovia: an autobiography of the years 1893–1920* (W. F. O'Brien, trans.). New York: Macmillan.

Shavinina, L. V. (in press). When child prodigies, unique representations, and the extracognitive combine: Toward a cognitive-developmental theory of giftedness. In L. V. Shavinina (ed.), *The international handbook on giftedness*. Amsterdam, The Netherlands: Springer Science & Business Media.

Sheldon, D. A. (2004). Listeners' identification of musical expression through figurative language and musical terminology. *Journal of Research in Music Education, 52*, 357–68.

Slater, E., & Meyer, A. (1959). Contributions to a pathography of the musicians: Robert Schumann. *Confinia Psychiatrica, 2*, 65–94.

Sloboda, J. A. (1998). Does music mean anything? *Musicae Scientiae, 2*, 21–31.

Sloboda, J. A. (1990). Music as language. In F. R. Wilson & F. L. Roehmann (eds), *Music and child development: The biology of music making* (pp. 28–43). St. Louis, MO: MMB Music.

Sloboda, J. A. (1991). Music structure and emotional response: Some empirical findings. *Psychology of Music, 19*, 110–20.

Sloboda, J. A. (1996). The acquisition of musical performance expertise: Deconstructing the 'talent' account of individual differences in musical expressivity. In K. A. Ericsson (ed.), *The road to excellence: The acquisition of expert performance in the arts and sciences, sports and games* (pp. 107–26). Mahwah, NJ: Erlbaum.

Sloboda, J. A., & Davidson, J. W. (1996). The young performing musician. In I. Deliège & J. A. Sloboda (eds), *Musical beginnings: Origins and development of musical competence* (pp. 171–90). Oxford: Oxford University Press.

Smiley, P. A., & Dweck, C. S. (1994). Individual differences in achievement goals among young children. *Child Development, 65*, 1723–43.

Spahn, C., Strukely, S., & Lehmann, A. (2004). Health conditions, attitudes toward study, and attitudes toward health at the beginning of university study: Music students in comparison with other student populations. *Medical Problems of Performing Musicians, 19*, 26–33.

Sternbach, D. J. (1995). Musicians: A neglected working population in crisis. In S. L. Sauter & L R. Murphy (eds), *Organizational risk factors for job stress* (pp. 283–302). Washington, DC: American Psychological Association.

Tilson Thomas, M. (2008). *Being Leonard Bernstein*. Retrieved September 21, 2008 from http://michaeltilsonthomas.com/press/

Trehub, S. E., & Trainor, L. (1998). Singing to infants: Lullabies and play songs. In C. Rovee-Collier, L. P. Lipsitt, & H. Hayne (eds), *Advances in Infancy Research: Vol. 12* (pp. 43–77). Stamford, CT: Ablex.

Trehub, S. E. (2006). Infants as musical connoisseurs. In G. E. McPherson (ed.), *The child as musician: A handbook of musical development* (pp. 33–50). Oxford: Oxford University Press.

Vandervert, L. R. (2007). Cognitive functions of the cerebellum explain how Ericsson's deliberate practice produces giftedness. *High Ability Studies, 18*, 89–92.

Vandervert, L. R., & Liu, H. (in press). How working memory and the cognitive cerebellum collaboratively produce the child prodigy. In L. V. Shavinina (ed.), *The international handbook of giftedness*. Amsterdam, The Netherlands: Springer Science & Business Media.

Weisberg, R. W. (1994). Genius and madness? A quasi-experimental test of the hypothesis that manic-depression increases creativity. *Psychological Science, 5*, 361–7.

Welch, G., & Adam, P. (2003). *How is music learning celebrated and developed? A professional user review of UK and related international research undertaken by the British Educational Research Association*. Southwell, UK: British Educational Research Association.

Williamon, A. (2004). A guide to enhancing musical performance. In A. Williamon (ed.), *Musical excellence: Strategies and techniques to enhance performance* (pp. 3–18). Oxford: Oxford University Press.

Williamon, A., & Davidson, J. W. (2002). Exploring co-performer communication. *Musicae Scientiae, 6*, 53–72.

Williamon, A., & Thompson, S. (2006). Awareness and incidence of health problems among conservatoire students. *Psychology of Music, 34*, 411–30.

Williamon, A., & Valentine, E. (1998). 'Practice makes perfect': The effects of piece and ability level on performance preparation. In S. W. Yi (ed.), *Proceedings of the 5th International Conference on Music Perception and Cognition, August, 1998* (pp. 323–8). Seoul, South Korea: Seoul National University.

Wills, G., & Cooper, C. L. (1988). *Pressure sensitive: Popular musicians under stress*. London: Sage.

Wilson, G. D., & Roland, D. (2002). Performance anxiety. In R. Parncutt & G. E. McPherson (ed.), *The science and psychology of music: Creative strategies for teaching and learning* (pp. 47–61). Oxford: Oxford University Press.

Winner, E. (1996). *Gifted children: Myths and realities*. New York: Basic Books.

Woody, R. H. (2000). Learning expressivity in music performance: An exploratory study. *Research Studies in Music Education, 14*, 14–23.

Woody, R. H. (2002a). Emotion, imagery and metaphor in the acquisition of musical performance skill. *Music Education Research, 4*, 213–24.

Woody, R. H. (2002b). The relationship between musicians' expectations and their perception of expressive features in an aural model. *Research Studies in Music Education, 18*, 53–61.

Woody, R. H. (2003). Explaining expressive performance: Component cognitive skills in an aural modeling task. *Journal of Research in Music Education, 51*, 51–63.

Woody, R. H. (2006a). Musician's cognitive processing of imagery-based instructions for expressive performance. *Journal of Research in Music Education, 54*, 125–37.

Woody, R. H. (2006b). The effect of various instructional conditions on expressive music performance. *Journal of Research in Music Education, 54*, 21–36.

Author/s:
Woody, R;MCPHERSON, G

Title:
Emotion and motivation in the lives of performers

Date:
2010

Citation:
Woody, R. & MCPHERSON, G. (2010). Emotion and motivation in the lives of performers. Handbook of music and emotion: theory, research, and applications, (1), pp.401-424. Oxford University Press.

Persistent Link:
http://hdl.handle.net/11343/29747